UNDERGROUND AIR TEMPERATURES—1935.

Field Datum is 2,967·21 feet above sea level (Madras).

Downcast							Upcast						
Names of Shafts and Stations	Vertical depth below Field Datum (feet)	Dry Bulb °F	Wet Bulb °F	Difference	Relative humidity per cent	Grains of water vapour per lb. of dry air	Names of Shafts and Stations	Vertical depth below Field Datum (feet)	Dry Bulb °F	Wet Bulb °F	Difference	Relative humidity per cent	Grains of water vapour per lb. of dry air
MYSORE GOLD MINING COMPANY, LIMITED.							MYSORE GOLD MINING COMPANY, LIMITED.						
Edgar's Shaft collar	18	73·6	66·5	7·1	67·6	94·0	Rowse's Shaft, surface	80	82·7	82·6	0·1	99·6	180·0
Edgar's Sub-Vertical 51st level crosscut ...	3,709	89·6	76·9	12·7	54·6	111·0	Drive, 59th level N. of Air Shaft	3,510	102·7	85·1	17·6	46·8	145.0
Edgar's Sub-Vertical 84th level plat ...	7,000	108·6	89·2	19·4	44·0	149·0	Drive, 73rd level S., Rowse's No. 2 Auxiliary Shaft.	5,900	110·4	90·4	20·0	44·0 (Approx.)	167·0
CHAMPION REEF GOLD MINES OF INDIA, LIMITED.							CHAMPION REEF GOLD MINES OF INDIA, LIMITED.						
South Development Winze 70th level plat ...	6,580	104·7	82·9	21·8	38·4	112·7	41st level Plat, Glen's Shaft	3,763	95·3	86·1	9·2	67·2	169·2
Heathcote Shaft 80th level plat	7,600	111·2	87·2	24·0	37·0	124·0	Drive 59th level S., Glen's Secondary Shaft	5,513	104·6	89·0	15·6	53·0	162·8
OOREGUM GOLD MINING COMPANY OF INDIA, LIMITED.							OOREGUM GOLD MINING COMPANY OF INDIA, LIMITED.						
Bullen's Vertical Shaft collar	103	75·0	66·4	8·6	62·5	92·4	Circular Shaft collar	96	81·4	77·0	4·4	81·4	147·2
Bullen's Incline 42nd level Plat	3,811	92·0	75·8	16·2	45·6	100·8	Drive, 60th level S., Bullen's Incline Shaft ..	5,550	102·4	83·9	18·5	45·0	131·5
Do 79th crosscut ...	7,333	107·0	82·0	25·0	33·0	105·0	Drive, 73rd level N., Auxiliary Shaft ...	6,727	113·5	89·4	24·1	37·8	147·2
NUNDYDROOG MINES, LIMITED.							NUNDYDROOG MINES, LIMITED.						
Henry's Shaft, 44th level crosscut ...	3,826	93·3	76·1	17·2	43·6	103·4	Taylor's Shaft 2,900 ft. level crosscut ...	2,523	92·5	80·2	12·3	57·4	137·8
No. 1 Auxiliary Shaft 51st level crosscut.	4,487	95·9	78·2	17·7	43·8	109·6	Taylor's Shaft, 32nd level crosscut ...	2,772	93·8	80·9	12·9	56·2	139·8
No. 2 do 54th do ...	4,756	95·8	77·6	18·2	43·6	104.5	Drive, 44th level S., Richards' Shaft ...	3,826	99·8	82·8	17·0	47·8	137·5
No. 3 do 57th do ...	5,025	99·0	79·0	20·0	40·0	106·4	48th level, Balaghat Fan Exhaust ...	4,226	101·6	87·1	14·5	54·0	162·9

B.—COMPARATIVE STATEMENT OF TEMPERATURES AND RELATIVE HUMIDITY OF ATMOSPHERE IN DEEP LEVELS AND SOME OF THE WORKING PLACES THEREIN.

Field Datum is 2,967·21 feet above sea level (Madras).

Locality						Development Points and Stopes					
Horizon	Vertical depth below Field Datum (feet)	Dry Bulb °F	Wet Bulb °F	Difference	Relative Humidity per cent	Place of work	Dry Bulb °F	Wet Bulb °F	Difference	Relative Humidity per cent	Remarks
CHAMPION REEF GOLD MINES OF INDIA, LIMITED.						CHAMPION REEF GOLD MINES OF INDIA, LIMITED.					
Drive, 70th level N., Carmichael's Secondary Shaft.	6,580	104·0	88·0	16·0	51·0	Stope below the 70th level N., Carmichael's Secondary Shaft.	108·0	91·0	17·0	51·0	Square end 150′ deep; chute full.
Drive, 72nd level N., North Main Winze ...	6,780	107·0	93·0	14·0	57·0	Stope below 72nd level N., North Main Winze.	109·0	93·0	16·0	53·0	Square end 40′ deep, chute full; stope on west reef.
Drive, 74th level S., North Main Winze ...	6,980	113·0	92·0	21·0	39·0	Rill stope above the 74th level S., North Main Winze.	113·0	93·0	20·0	40·0	Stope on main reef
Plat, 76th level, North Main Winze ...	7,180	109·0	90·0	19·0	45·0	Drive, 76th level S., North Main Winze ...	111·0	95·0	16·0	54·0	Fixing rail setts.
Plat, 80th level, North Main Winze ...	7,600	111·0	92·0	19·0	46·0	Drive, 80th level S., North Main Winze ...	110·0	95·0	15·0	56·0	Two machines drilling; fan pipe and air jet blowing.
Drive, 80th level S., South Development Winze.	7,600	109·5	93·0	16·5	52·0	End of No. 2 crosscut E., from drive ...	115·0	93·0	22·0	38·0	Crosscut put out 110′ from drive, air jet blowing; clearing stuff.
Plat, 80th level, South Development Winze ...	7,600	108·0	89·0	19·0	45·0	Sink of No. 3 Winze below the 80th level S., South Development Winze.	107·0	91·0	16·0	53·0	Sink 82′ below level; 2″ air pipe blowing.
Plat, 82nd level, Heathcote Shaft	7,800	112·0	94·0	18·0	50·0	End of crosscut W. 82nd level from Heathcote Shaft.	109·0	93·0	16·0	53·0	Crosscut put out 67′, 2″ air pipe blowing.
OOREGUM GOLD MINING COMPANY OF INDIA, LIMITED.						OOREGUM GOLD MINING COMPANY OF INDIA, LIMITED.					
Drive, 70th level S., Bullen's Incline Shaft ...	6,450	112·0	91·0	21·0	40·0	Stope below the 70th level S., Bullen's Incline Shaft.	112·0	92·0	20·0	41·0	Square end 15′ deep
Drive, 73rd level N., Bullen's Incline Shaft	6,727	112·0	90·0	22·0	40·0	Stope below the 73rd level N., Bullen's Incline Shaft.	114·0	93·0	21·0	39·0	Square end 30′ deep
Plat, 76th level, Bullen's Incline Shaft ...	7,028	108·5	87·0	21·5	40·0	Back Stope above 76th level N., Bullen's Incline Shaft.	115·0	91·0	24·0	36·0	Stope 25′ above the level
Drive, 78th level S., Bullen's Incline Shaft ..	7,233	114·0	92·0	22·0	38·0 (Appr.)	Stope below the 78th level S., Bullen's Incline Shaft	113·0	91·5	21·5	39·5	Square end 12′ down, venturi pipe blowing.
Drive, 79th level N., Auxiliary Shaft ...	7,333	116·0	91·5	24·5	35·0	Sink of Oakley's No. 3 Winze below the 79th level N., Auxiliary Shaft.	113·0	90·0	23·0	38·0	Sink 230′ below 79; fan pipe and 2″ compressed air pipe blowing.
Plat, 82nd level, Bullen's Incline Shaft ...	7,628	111·0	89·0	22·0	41·0	Drive, 82nd level S., Bullen's Incline Shaft	112·0	95·0	17·0	52·0	Fan pipe blowing 50′ back from face.
Drive, 82nd level N., Bullen's Incline Shaft...	7,628	111·5	90·0	21·5	41·0	Sink of No. 3 Winze below the 82nd level S., Bullen's Incline Shaft.	109·5	92·0	17·5	50·0	Crosscut E. put out 6′ from the bottom of the winze 200′ below 82; Heleshaw fan forcing air down the winze.
Drive, 84th level N., Auxiliary Shaft ...	7,828	114·0	93·0	21·0	43·0	Drive, 84th level S., Auxiliary Shaft ...	114·0	91·0	23·0	37·0	Drive on central ore shoot.

N.B.—The annual mean values of dry and wet bulb temperatures on surface were 76·1°F and 65·9°F, the corresponding temperatures for the previous year being 76·0°F and 65·5°F, respectively.

VI. Prosecutions.

(a) In connection with thefts, etc., of Mining Materials.

The following statement shows the number of cases dealt with during the year 1935 by the Special First Class Magistrate, Kolar Gold Field, in connection with the theft and illegal possession of mining materials under Section 6 of the Mysore Mines Regulation, as compared with 1934 :—

Year	Number of cases	Number of persons put up	Number of persons convicted	Value of property recovered
				Rs. a. p.
1935	43	67	57	1,399 8 9
1934	24	31	28	1,254 14 0

The following table shows the various kinds of mining materials in respect of which prosecutions were instituted during year 1935 :—

Kind of material	Number of offences dealt with	Number of persons charged	Number of convictions	Value of property recovered
				Rs. a p.
Gold Quartz	30	45	38	281 2 6
Auriferous tailings	3	8	8	4 15 3
Amalgam	...	...	...	...
Sponge gold	5	7	5	866 10 0
Unwrought Bar Gold	2	2	2	*221 4 0
Explosives	...	...	...	...
Tools	3	5	4	25 9 0
Coal	...	...	...	...
Total ...	43	67	57	1,399 8 9

* Estimated.

(b) In connection with breach of Rules, Accidents, etc.

The following is a comparative statement for the years 1935, 1934 and 1933.

	1935	1934	1933
Number of cases	23	36	20
Number of persons put up	28	38	27
Number of persons convicted	27	38	25
Number of persons acquitted	.	. .	1
Number of persons discharged	1	...	1
Number of persons not found	...	...	...
Number of cases pending	...	...	...

Of the above, 16 cases were put up under the Mysore Mines Regulation and 7 under the Indian Penal Code. The penalties in the case of convictions ranged from fines of Rs. 0-8-0 to Rs. 10 and imprisonment from 3 days to 1 month.

During the year, 5 persons were prosecuted for breaches of the Mysore Mines Regulation and Rules framed thereunder resulting in accidents and all of them were convicted.

Less serious offences committed in connection with 22 accidents entailed departmental punishment of 22 persons who were either fined or had their certificates suspended.

Similarly, seven other persons were dealt with departmentally for offences not resulting in accidents.

E. EXPLOSIVES SECTION.

(Calendar year 1935).

Number of Licenses issued.—During the year, eight licenses in Form J were granted by Government under Articles 12 and 13 of Schedule I, Mysore Explosives Rules, for the possession of specified explosives (other than fulminates) in and sale from, a magazine, the same as in 1934. The actual number of magazines inspected and in use is far in excess of this number as each gold mining Company has two or more magazines included under one license in accordance with Rule 94, Mysore Mining Rules.

Altogether, 893 licenses were issued by the District Magistrates under the remaining Articles of Schedule I in Forms A, B, C, D, E and F for the manufacture, possession and sale of explosives, 159 licenses more than in the previous year. This large increase is mainly due to more licenses having been granted in Form E (410 against 290) this year to contractors, cultivators and others to possess small quantities of explosives mostly for sinking wells in rural and urban areas.

In all, 901 licenses were granted in the State for the year compared with 742 during 1934, an increase of 159 licenses.

The following statement shows the distribution of licenses in the various Forms among the Districts for the year :—

District	Forms									Total for 1935	Total for 1934
	A	B	C	D	E	F	J	K	L		
1. Bangalore	9	116	...	...	92	...	1	...	...	218	185
2. Kolar	9	46	...	...	151	...	5	...	...	211	137
3. Tumkur	5	22	...	2	42	...	...	...	...	71	47
4. Mysore	5	58	...	2	13	...	2	...	...	80	84
5. Hassan	4	28	...	16	56	1	...	...	...	105	90
6. Shimoga	12	58	...	15	19	...	...	...	...	104	91
7. Kadur	9	30	1	7	22	...	...	...	...	69	77
8. Chitaldrug	6	22	...	...	15	...	...	...	...	43	31
Total ...	59	380	1	42	410	1	8	...	...	901	742

Observations on the issue of Licenses by the District Magistrates.—Owing to the prompt action taken by this Department by bringing to the notice of the District Magistrates concerned any irregularities and defects discovered in the monthly returns received from the Districts, cases of issue of licenses on wrong forms, licensing larger quantities of explosives than are allowed by the rules, charging excessive or insufficient fees, etc., have been minimised in recent years.

Departmental Inspection of Magazines and Premises.—All the main and subsidiary magazines included in the licenses granted by Government for the possession of specified explosives both on the Kolar Gold Field and outside and all the daily supply magazines at shaft heads have been inspected in detail during the year by the Officers of this Department and the lightning conductors attached to them tested. The magazines are in good order and their up-keep and supervision well maintained. As usual, the companies have been found to be most willing to carry out any recommendations made and our thanks are due to them for making our duties easy in this respect.

In addition, the Public Works Department Magazines at Chitaldrug and Hassan and some of the premises licensed for the manufacture, possession and sale of gunpowder and fireworks in Bangalore, Mysore, Kolar and Hassan Districts were also inspected during the year.

Condition of Explosives.—The physical condition of all explosives in the different magazines was found to be good except 45 lbs. of 30 per cent L. G. Gelatine from the explosives magazine of Messrs. Best & Co., Ltd., Agents, Messrs.

Nobel's Explosives Co., Ltd., Bangalore City, which were found to have become defective and therefore destroyed.

Authorised Explosives.—A list of explosives at present authorised for importation into the State for general sale, adopted from the list of explosives authorised for importation into British India, is given in Appendix III.

Government Magazines in charge of Civil Officers (Public Works and Electrical).—Ten reports of inspection of these magazines by the officers of the Public Works and Electrical Departments have been received in this office and defects which required remedying have been brought to the notice of the officers concerned.

Inspection by the Magistracy and the Police.—The total number of inspections of explosives premises carried out during the year by the Magisterial and Police Officers empowered to conduct them under Rule 125, Mysore Explosives Rules, was 708 compared with 572 during the previous year, an increase of 136 inspections.

Two hundred and forty-one premises or 49·90 per cent of the total number licensed (483) excluding 410 'E' licenses issued for the possession of small quantities of explosives required *bona fide* for blasting purposes and 8 magazine licenses granted by Government for the possession of specified high explosives, have been inspected by District Officers.

The following table gives the number of licenses issued in the several districts and the percentage of premises inspected in each during 1935 and the two previous years :—

District	Number of licenses issued during			Percentage of premises inspected during			Remarks
	1935	1934	1933	1935	1934	1933	
1. Bangalore ...	218	185	134	(a) 12·80	(a) 14·85	(a) 22·22	1 Granted by Government
2. Kolar ...	211	137	93	47·27	60·00	46·00	5 Granted by Government
3. Tumkur ...	71	47	42	72·41	28·00	64·00	
4. Mysore ...	80	84	78	16·92	31·25	19·64	2 Granted by Government
5. Hassan ...	105	90	70	48·98	50·00	57·14	
6. Shimoga ...	104	91	87	81·18	91·57	42·68	
7. Kadur ...	69	77	77	97·87	100·00	18·08	
8. Chitaldrug ...	43	31	31	100·00	92·31	85·71	
Total ...	901	742	612	(b) 49·90	(b) 55·08	(b) 48·70	

(*a*) It is stated that all the premises licensed temporarily during Deepavali and Shaban Festival Seasons have been inspected by the Police Officers.

(*b*) These percentages are obtained after excluding the magazine licenses brought under the direct inspection of the Chief Inspector of Mines and Explosives in Mysore and the licenses in Form E (granted to contractors, cultivators and others) to possess small quantities of gunpowder and other explosives required for *bona fide* blasting purposes.

Theft of Explosives.—During the year the loss of six fog signals from Haranahalli Railway Station, Shimoga-Arasalu Railway, was reported to this Department which the Police are tracing.

Prosecutions for unlicensed Manufacture of or dealing in Explosives.—There were 34 cases of prosecutions under the Mysore Explosives Regulation and Rules during the year resulting in the conviction of 27 persons and acquittal of ten others. Twenty of these cases were in connection with accidents.

The following table gives the number of cases launched in each District together with the result thereof :—

Statement of Prosecutions under the Mysore Explosives Regulation and the rules thereunder.

District	No. of cases	Nature of offence	No. of persons charged	No. of persons convicted	Result
Bangalore ...	2	Unauthorised possession of gunpowder.	2	2	Fined Rs. 5 or in default to suffer simple imprisonment for five days and Re. 1, respectively.
Do ...	3	Unauthorised manufacture of fireworks.	3	3	Fined Rs. 10 or in default to suffer one week's simple imprisonment Rs. 5 and Rs. 2 respectively.
Kolar ...	1	Unauthorised possession of gunpowder.	1	1	Fined Rs. 5.
Do ...	1	Violation of the conditions of the license.	1	1	Fined Rs. 10 or in default to suffer six days' simple imprisonment.
Do ...	7	Unauthorised possession and sale of fireworks.	7	7	Fined Rs 5 or in default to suffer five days' simple imprisonment each
Do ...	1	Causing death by negligence by the use of explosives.	1	1	Sentenced to suffer five weeks' rigorous imprisonment.
Do ...	1	Causing grievous hurt by the use of explosives.	1	...	Acquitted.
Tumkur ...	1	Unauthorised manufacture of explosives.	1	1	Fined Rs. 2 or in default to suffer simple imprisonment till the rising of the Court.
Mysore ...	3	Unauthorised manufacture of gunpowder.	3	2	Fined Rs. 5 and Rs. 20 or in default to suffer simple imprisonment for seven days and one month, respectively. One acquitted.
Do ...	2	Unauthorised manufacture of fireworks.	2	1	Fined Rs. 20 or in default to suffer 14 days' simple imprisonment. One acquitted.
Hassan ...	1	Unauthorised manufacture of fireworks.	1	1	Fined Rs. 5.
Kadur ...	1	Unauthorised manufacture of fireworks.	1	...	Acquitted.
Do ...	1	Contravening a condition of the license.	1	...	Acquitted.
Shimoga ...	1	Contravening the conditions of the license.	1	1	Fined Rs. 7.
Do ...	2	Unauthorised manufacture of fireworks.	3	3	Fined Rs. 5 or in default to suffer five days' simple imprisonment each.
Do ...	1	Unauthorised possession of fireworks.	3	...	Acquitted.
Chitaldrug ...	1	Unauthorised manufacture of fireworks.	1	1	Fined Rs. 2.
Do ...	3	Unauthorised possession of gunpowder.	3	1	Fined Rs. 50 or in default to suffer one week's simple imprisonment. 2 Acquitted.
Do ...	1	Unauthorised possession and sale of explosives.	1	1	Fined Rs. 20 or in default to suffer simple imprisonment for one week.

Accidents.—In all there were reported to this Department during the year 64 accidents due to explosives involving the death of 13 persons and injuries to 92 others compared with 57, 22 and 65, respectively, during 1934. Of these, 13 occurred on the Kolar Gold Field resulting in the death of five persons and serious injuries to 16 others. Drilling into or intersecting sockets were the causes of accidents in the mines.

A list of accidents, with a brief description of each, that occurred outside the Kolar Gold Field mining area, is given in Appendix II. No accidents from the use of fulminates as such were reported. Firework accidents previously reported under this head are classified under Fireworks Class VII.

Departmental Action in connection with Accidents.—In nine out of thirteen accidents that occurred on the Kolar Gold Field departmental action was taken. The mestris or blasters responsible for five of them were suspended from working as such for periods varying from one to six months. In four cases the certificates of the persons concerned were suspended *sine die*. In two cases, the injuries sustained by the persons responsible for the accidents were considered sufficient punishment. In one case, the mestri responsible died from the effects of the injuries sustained and in the last case the blaster concerned was let off with a warning.

Explosives imported into the State.—The following statement shows the quantity of explosives imported into the State during 1935 compared with that of the previous year:—

Description		1935	1934	Increase	Decrease
Gunpowder	Lbs.	3,679	5,829	...	2,150
Percussion Caps	No.	687,000	1,184,700	...	497,700
Dynamite	Lbs.	118,000	137,500	...	19,500
Blasting Gelatine	do	343,000	493,500	...	150,500
Gelignite	do	10,500	98,500	...	88,000
Safety Fuse	Coils	215,100	297,000	...	81,900
Safety Fuse Lighters ...	No.	38,000	22,000	16,000	...
Detonators	do	1,330,000	1,995,000	...	665,000
Loaded rifle cartridges ...	do	8,650	111,400	...	102,750
Do gun do ...	do	46,875	76,850	...	29,975
Do revolver do ...	do	1,375	1,270	105	...
Do pistol do ...	do	350	50	300	...
Empty gun do ...	do	2,600	12,248	...	9,648
Sulphur	Lbs.	16,937	31,486	..	14,549

Explosives confiscated to Government.—A quantity of firework composition and manufactured fireworks and some tools used in their manufacture seized by the Dodballapur Police from a non-licensee who was convicted and sentenced to pay a fine of Rs. 10 were ordered to be confiscated to Government by the Magistrate.

Petroleum.

Number of Licenses issued.—During the calendar year (1935) 141 licenses were issued under the Mysore Petroleum Regulation and Rules, of which 119 were for the import, transport and possession of dangerous petroleum and 22 for non-dangerous petroleum. Fifty-four of the former were granted in Form Q under Rule 6, Chapter VI, Part II of the Petroleum Rules for the storage of dangerous petroleum in underground tanks fitted with Kerbside Pumps.

The following table gives the number of licenses issued in each district during the year in various forms:—

District	Forms												Total for 1935	Total for 1934
	A	B	C	D	E	F	G	H	M	P	Q	R		
1. Bangalore City	...	...	...	...	...	...	—	...	...	...	...	...	...	1
2. Bangalore; in other parts of the district including Bangalore City.	...	1	1	...	...	...	2	5	3	...	17	...	29	33
3. Kolar District	...	4	...	1	3	...	...	...	...	1	7	1	17	14
4. Kolar Gold Field Sanitary Board area.	...	...	...	...	4	...	...	...	...	...	...	...	4	4
5. Tumkur District ...	1	4	1	...	...	1	...	1	...	...	3	...	11	11
6. Mysore City	...	...	...	...	2	...	...	...	...	...	...	...	2	2
7. Mysore; in other parts of the district including Mysore City.	...	8	...	...	...	...	...	...	...	...	12	4	24	28
8. Hassan District	1	4	4	...	1	...	...	...	...	...	4	1	15	16
9. Shimoga District ...	1	3	3	...	1	...	...	...	...	...	3	1	12	15
10. Kadur District	...	9	...	...	...	...	...	...	...	...	4	...	13	15
11. Chitaldrug District ...	2	1	3	...	3	...	...	...	...	...	4	1	14	14
Total ...	5	34	12	1	14	1	2	6	3	1	54	8	141	153

The total amount of fees realised during the year under report was Rs. 2,930-5-4 as against Rs. 3,343 in 1934.

Inspections.—Some petroleum installations in the Districts of Bangalore, Mysore, Hassan, Tumkur and Kolar were inspected by the Officers of this Department during the year.

Accidents.—No accident from petroleum was reported during the year.

Prosecutions.—There were two cases of prosecutions under the Mysore Petroleum Regulation and Rules during the year in the Tumkur District.

In one case the driver and conductor of a bus were charged for unauthorised possession and transport of dangerous petroleum but were acquitted. In the other case, the driver of a bus was prosecuted for a similar offence and sentenced to pay a fine of Re. 1.

Petroleum imported into the State.—The total quantities of dangerous petroleum and kerosene imported into the State during the calendar year 1935 were 1,712,704 and 3,823,549 gallons, respectively, as against 1,588,205 and 3,907,794 gallons, respectively, during 1934.

Carbide of Calcium Rules. Four licenses for possession of calcium carbide were current during the year.

OORGAUM, K. G. F.
14th September 1936.

C. E. SURYANARAYANA RAU,
Chief Inspector of Mines and Explosives in Mysore.